

Metal Finishing Index to Volume 93

January—December 1995

This index covers features and columns, including shop problems, appearing in *Metal Finishing* during the calendar year of 1995.

SUBJECT INDEX

AESF SUR/FIN '95
-preview of technical program and exhibitors for, 6/95, p. 16

Abrasives
-for polishing and buffing, 12/95, p. 34
-microreplication technology meets demand for coated, 12/95, p. 14

Acid
-grade required for copper baths, 4/95, p. 62

Acronyms
-definitions of, 1/95, p. 59

Activated Carbon
-removal and recovery of chromium from plating waste using chemically, 11/95, p. 46

Aerospace Industry
-an impact assessment of the 1990 Clean Air Act Amendments on the, 4/95, p. 10
-regulatory impacts on the use of solvents in the, 8/95, p. 20

Air Pollution Control
-an overview of the 1990 Clean Air Act Amendments, 4/95, p. 10
-review of 1994 inorganic technical developments in, 2/95, p. 49
-review of 1994 organic technical developments in, 2/95, p. 22
-product showcase of equipment for, 2/95, p. 55

Aircraft
-an X-ray photoelectron spectroscopy study of nickel coating processes for, 4/95, p. 46
-degreasing of skins and honeycomb core from, 7/95, p. 40

Aluminum
-alternative to ammonium bifluoride for satin finish etching of, 12/95, p. 47
-anodic breakthrough method for testing anodized, 7/95, p. 22
-cleaning of entrapped materials on polished assemblies of, 6/95, p. 119
-elimination of chromate from conversion coating of 5000 series armor-grade, 11/95, p. 28
-desmutting silicon-rich castings of, 2/95, p. 84
-kinetics for chromating of, 12/95, p. 8
-organic acid sealants for anodized, 7/95, p. 16
-outgassing of during electroless nickel coating, 6/95, p. 119
-testing of Mil-C-5541 chromate for, 9/95, p. 59

Analytical Control
-of alkaline noncyanide zinc, 2/95, p. 61

Anode Baskets
-black film on titanium, 10/95, p. 60
-safety in refilling, 1/95, p. 54

Anodes
-coated in copper strike, 5/95, p. 60
-platinum-plated titanium, 9/95, p. 46
-reusing from chrome plating tank, 2/95, p. 74

Anodizing
-anodic breakthrough method for testing aluminum, 7/95, p. 22
-hardcoat plus Teflon, 9/95, p. 61
-limited thickness of hardcoat, 3/95, p. 62

-new regulation for chromium, 7/95, p. 61; 8/95, p. 34
-nonuniform black, 4/95, p. 57
-of large parts, 8/95, p. 62
-of magnesium, 9/95, p. 65
-of nickel, 6/95, p. 119
-organic acid sealants for aluminum, 7/95, p. 16
-review of 1994 technical developments in, 2/95, p. 30
-reworking rejected parts for, 6/95, p. 119
-sealing with castor oil, 10/95, p. 73
-product showcase of processes and equipment for, 12/95, p. 40
-smut on, 11/95, p. 102
-variable color in, 8/95, p. 66
-white spots in, 12/95, p. 54

Antimony Trioxide
-effect on stripping of tin-lead from copper and steel, 1/95, p. 35

Automotive
-application of waterborne basecoat using robotics, 10/95, p. 47
-applications for chromium, 10/95, p. 11
-low-emission paint consortium, a unique approach to powder painting technology, 10/95, p. 26
-paint performance, 10/95, p. 53

Barrels
-burn marks on parts plated in, 7/95, p. 52
-nylon for immersion service in, 4/95, p. 62
-rejects in plated parts from, 11/95, p. 102
-variability in silver plating in, 2/95, p. 84

Benzyl Alcohol
-based paint stripping, 4/95, p. 34

Black
-coating for solar energy applications, 6/95, p. 90
-nickel bath, 10/95, p. 73
-oxide waste treatment, 6/95, p. 114; 9/95, p. 58
-pits in castings of brass, 5/95, p. 60

Blasting
-is it enough, 10/95, p. 65
-of heavy weldments prior to painting, 4/95, p. 69
-review of 1994 technical developments in, 2/95, p. 26
-product showcase of equipment and media for, 1/95, p. 43

Blushing
-what is, 3/95, p. 60

Boilers
-opacity monitors for, 6/95, p. 109

Boric Acid
-what happens to the boron from in nickel plating, 12/95, p. 47

Brass
-black pits in castings of, 5/95, p. 60
-coating of parts plated with, 5/95, p. 47
-stains on parts of plated, 3/95, p. 62

Buffing
-review of 1994 technical developments in, 2/95, p. 30
-theory and practice, 12/95, p. 34

Burning

-of plated parts, 7/95, p. 52

CARC
-DS2 testing of, 3/95, p. 60

Cadmium
-removal from wastewater using recycled shot-blast fines, 11/95, p. 13
-review of 1994 technical developments in plating of, 2/95, p. 31

Chemical Removal
-of solder or solder electroplates, 1/95, p. 34

Carbon Dioxide
-precision surface cleaning with supercritical, 3/95, p. 22

China
-plating shop in, 1/95, p. 19
-the quandry facing Hong Kong, 6/95, p. 104

Chromate
-and dye for beryllium-copper, 10/95, p. 62
-coating of alkaline zinc, 2/95, p. 62
-color coding of zinc, 8/95, p. 66
-dip with redder shade for zinc-plated ware, 2/95, p. 85
-elimination from conversion coating of 5000 series armor-grade aluminum, 11/95, p. 28
-kinetics for aluminum, 12/95, p. 8
-protective coating for a zinc, 3/95, p. 53
-scratches on, 11/95, p. 102
-testing of Mil-C-5541, 9/95, p. 59

Chromium
-air permits for plating of, 4/95, p. 63
-automotive applications for plating of, 10/95, p. 11
-bath purification and recovery using ion exchange, 11/95, p. 40
-determination of trivalent, 4/95, p. 12
-focus on, 8/95, p. 34
-hardness of plated, 10/95, p. 73
-MACT standard: development and compliance with T-BACT controls, 11/95, p. 60
-make-up water for plating bath of hard, 12/95, p. 54
-new regulation for platers and anodizers using, 7/95, p. 61; 8/95, p. 34
-NPDES permit for plating of, 8/95, p. 40
-plated gravure rollers, 10/95, p. 73
-plating colloquium held in St. Etienne, 8/95, p. 38
-plating silver on, 4/95, p. 57
-platinum-plated anode for electrodeposition of, 9/95, p. 46
-poor coverage in plating of, 8/95, p. 66
-porous plate of for engine cylinders, 6/95, p. 119
-removal and recovery using chemically activated carbon, 11/95, p. 46
-reusing anodes from plating of, 2/95, p. 74
-review of 1994 technical developments in plating of, 2/95, p. 33
-stripping from copper, 9/95, p. 61
-summit to assist in compliance with new regulations, 8/95, p. 36
-thickness requirements for plating of, 1/95, p. 79

Clarifiers

Metal Finishing Index to Volume 93

January—December 1995

This index covers features and columns, including shop problems, appearing in *Metal Finishing* during the calendar year of 1995.

SUBJECT INDEX

AESF SUR/FIN '95
-preview of technical program and exhibitors for, 6/95, p. 16

Abrasives
-for polishing and buffing, 12/95, p. 34
-microreplication technology meets demand for coated, 12/95, p. 14

Acid
-grade required for copper baths, 4/95, p. 62

Acronyms
-definitions of, 1/95, p. 59

Activated Carbon
-removal and recovery of chromium from plating waste using chemically, 11/95, p. 46

Aerospace Industry
-an impact assessment of the 1990 Clean Air Act Amendments on the, 4/95, p. 10
-regulatory impacts on the use of solvents in the, 8/95, p. 20

Air Pollution Control
-an overview of the 1990 Clean Air Act Amendments, 4/95, p. 10
-review of 1994 inorganic technical developments in, 2/95, p. 49
-review of 1994 organic technical developments in, 2/95, p. 22
-product showcase of equipment for, 2/95, p. 55

Aircraft
-an X-ray photoelectron spectroscopy study of nickel coating processes for, 4/95, p. 46
-degreasing of skins and honeycomb core from, 7/95, p. 40

Aluminum
-alternative to ammonium bifluoride for satin finish etching of, 12/95, p. 47
-anodic breakthrough method for testing anodized, 7/95, p. 22
-cleaning of entrapped materials on polished assemblies of, 6/95, p. 119
-elimination of chromate from conversion coating of 5000 series armor-grade, 11/95, p. 28
-desmutting silicon-rich castings of, 2/95, p. 84
-kinetics for chromating of, 12/95, p. 8
-organic acid sealants for anodized, 7/95, p. 16
-outgassing of during electroless nickel coating, 6/95, p. 119
-testing of Mil-C-5541 chromate for, 9/95, p. 59

Analytical Control
-of alkaline noncyanide zinc, 2/95, p. 61

Anode Baskets
-black film on titanium, 10/95, p. 60
-safety in refilling, 1/95, p. 54

Anodes
-coated in copper strike, 5/95, p. 60
-platinum-plated titanium, 9/95, p. 46
-reusing from chrome plating tank, 2/95, p. 74

Anodizing
-anodic breakthrough method for testing aluminum, 7/95, p. 22
-hardcoat plus Teflon, 9/95, p. 61
-limited thickness of hardcoat, 3/95, p. 62

-new regulation for chromium, 7/95, p. 61; 8/95, p. 34
-nonuniform black, 4/95, p. 57
-of large parts, 8/95, p. 62
-of magnesium, 9/95, p. 65
-of nickel, 6/95, p. 119
-organic acid sealants for aluminum, 7/95, p. 16
-review of 1994 technical developments in, 2/95, p. 30
-reworking rejected parts for, 6/95, p. 119
-sealing with castor oil, 10/95, p. 73
-product showcase of processes and equipment for, 12/95, p. 40
-smut on, 11/95, p. 102
-variable color in, 8/95, p. 66
-white spots in, 12/95, p. 54

Antimony Trioxide
-effect on stripping of tin-lead from copper and steel, 1/95, p. 35

Automotive
-application of waterborne basecoat using robotics, 10/95, p. 47
-applications for chromium, 10/95, p. 11
-low-emission paint consortium, a unique approach to powder painting technology, 10/95, p. 26
-paint performance, 10/95, p. 53

Barrels
-burn marks on parts plated in, 7/95, p. 52
-nylon for immersion service in, 4/95, p. 62
-rejects in plated parts from, 11/95, p. 102
-variability in silver plating in, 2/95, p. 84

Benzyl Alcohol
-based paint stripping, 4/95, p. 34

Black
-coating for solar energy applications, 6/95, p. 90
-nickel bath, 10/95, p. 73
-oxide waste treatment, 6/95, p. 114; 9/95, p. 58
-pits in castings of brass, 5/95, p. 60

Blasting
-is it enough, 10/95, p. 65
-of heavy weldments prior to painting, 4/95, p. 69
-review of 1994 technical developments in, 2/95, p. 26
-product showcase of equipment and media for, 1/95, p. 43

Blushing
-what is, 3/95, p. 60

Boilers
-opacity monitors for, 6/95, p. 109

Boric Acid
-what happens to the boron from in nickel plating, 12/95, p. 47

Brass
-black pits in castings of, 5/95, p. 60
-coating of parts plated with, 5/95, p. 47
-stains on parts of plated, 3/95, p. 62

Buffing
-review of 1994 technical developments in, 2/95, p. 30
-theory and practice, 12/95, p. 34

Burning

-of plated parts, 7/95, p. 52

CARC
-DS2 testing of, 3/95, p. 60

Cadmium
-removal from wastewater using recycled shot-blast fines, 11/95, p. 13
-review of 1994 technical developments in plating of, 2/95, p. 31

Chemical Removal
-of solder or solder electroplates, 1/95, p. 34

Carbon Dioxide
-precision surface cleaning with supercritical, 3/95, p. 22

China
-plating shop in, 1/95, p. 19
-the quandary facing Hong Kong, 6/95, p. 104

Chromate
-and dye for beryllium-copper, 10/95, p. 62
-coating of alkaline zinc, 2/95, p. 62
-color coding of zinc, 8/95, p. 66
-dip with redder shade for zinc-plated ware, 2/95, p. 85
-elimination from conversion coating of 5000 series armor-grade aluminum, 11/95, p. 28
-kinetics for aluminum, 12/95, p. 8
-protective coating for a zinc, 3/95, p. 53
-scratches on, 11/95, p. 102
-testing of Mil-C-5541, 9/95, p. 59

Chromium
-air permits for plating of, 4/95, p. 63
-automotive applications for plating of, 10/95, p. 11
-bath purification and recovery using ion exchange, 11/95, p. 40
-determination of trivalent, 4/95, p. 12
-focus on, 8/95, p. 34
-hardness of plated, 10/95, p. 73
-MACT standard: development and compliance with T-BACT controls, 11/95, p. 60
-make-up water for plating bath of hard, 12/95, p. 54
-new regulation for platers and anodizers using, 7/95, p. 61; 8/95, p. 34
-NPDES permit for plating of, 8/95, p. 40
-plated gravure rollers, 10/95, p. 73
-plating colloquium held in St. Etienne, 8/95, p. 38
-plating silver on, 4/95, p. 57
-platinum-plated anode for electrodeposition of, 9/95, p. 46
-poor coverage in plating of, 8/95, p. 66
-porous plate of for engine cylinders, 6/95, p. 119
-removal and recovery using chemically activated carbon, 11/95, p. 46
-reusing anodes from plating of, 2/95, p. 74
-review of 1994 technical developments in plating of, 2/95, p. 33
-stripping from copper, 9/95, p. 61
-summit to assist in compliance with new regulations, 8/95, p. 36
-thickness requirements for plating of, 1/95, p. 79

Clarifiers

- and filters, 1/95, p. 53
- Class A Coaters**
 - an overview on, 4/95, p. 67
- Clean Air Act Amendments**
 - air permits for chrome plating under the, 4/95, p. 63
 - an aerospace industry impact assessment of the, 4/95, p. 10
 - focus on chromium under the, 8/95, p. 34
 - operating flexibility under Title V of the, 1/95, p. 57
 - regulatory impacts on aerospace solvent usage under the, 8/95, p. 20
 - Title V requires better communication between management and painters under the, 3/95, p. 50
- Clean Water Act**
 - citizen suits and the, 10/95, p. 50
- Cleaning**
 - aerospace alternatives for solvent, 8/95, p. 25
 - all it takes is good, 9/95, p. 68
 - dull parts after, 3/95, p. 62
 - equipment modifications for aqueous applications, 3/95, p. 30
 - equipment showcase for ultrasonic, 8/95, p. 49
 - evolution of technology for aqueous, 9/95, p. 34
 - of aircraft skins and honeycomb core, 7/95, p. 40
 - of entrapped materials on polished aluminum assemblies, 6/95, p. 119
 - review of 1994 technical developments in, 2/95, p. 25
 - the cleaner, 6/95, p. 119
 - with aqueous alkaline materials as an alternative to solvents, 3/95, p. 10
 - with supercritical carbon dioxide, 3/95, p. 22
- Coated Abrasives**
 - microreplication technology meets demands for, 12/95, p. 14
- Coating**
 - advancements in injection in-mold, 9/95, p. 41
 - compliant versus noncompliant, 11/95, p. 85
 - critics, 7/95, p. 59
 - estimating material requirements for, 2/95, p. 80
 - flow additives for, 5/95, p. 47
 - laser-cut edges, 11/95, p. 69
 - obtaining consistent viscosity measurements for, 4/95, p. 70
 - of machined surfaces, 9/95, p. 68
 - specifying a prohibited, 11/95, p. 84
- Coil**
 - anodic protection of titanium, 8/95, p. 61
 - electrical installation for a steam, 5/95, p. 58
- Color Coding**
 - of chromated zinc, 8/95, p. 66
- Common Sense Initiative**
 - how could it affect the surface coatings industry, 6/95, p. 111
 - toward a more productive metal finishing industry, 8/95, p. 44
- Composite Electrodeposits**
 - of nickel-boron nitride, 6/95, p. 97
 - review of 1994 technical developments in, 2/95, p. 45
- Computer**
 - communication on the Internet, 5/95, p. 58
 - database for customer approvals, 1/95, p. 55
 - database for personalized letters, 3/95, p. 42
 - holiday newsletter by, 11/95, p. 70
 - newsletters by, 10/95, p. 68
 - spreadsheet for charts, 5/95, p. 55
 - spreadsheet for income and expenses, 7/95, p. 49
- Conversion Coating**
 - elimination of chromate from for 5000 series armor-grade aluminum, 11/95, p. 28
 - phosphate-permanganate for magnesium, 10/95, p. 34
- review of 1994 technical developments in, 2/95, p. 44**
- Copper**
 - bath contamination with lead, 11/95, p. 102
 - chromating and dyeing of beryllium, 10/95, p. 62
 - coated anodes in strike bath for, 5/95, p. 60
 - contamination in acid tin baths, 8/95, p. 66
 - grade of acid required for plating baths of, 4/95, p. 62
 - microstructure of nickel electrodeposited from a sulfamate/formamide bath onto, 5/95, p. 20
 - review of 1994 technical developments in plating of, 2/95, pp. 33, 41
 - roughness in acid plating of, 2/95, p. 84
 - stripping chromium from, 9/95, p. 61
- Coulometric Readout**
 - for pulse plating, 1/95, p. 24
- Crodon Finish**
 - what is a, 9/95, p. 61
- Curing**
 - of precut metal sheets for postforming, 4/95, p. 24
 - powder on large parts, 10/95, p. 65
 - review of 1994 technical developments in, 2/95, p. 19
- Deburring**
 - by thermal means, 3/95, p. 58
- Degreasing**
 - of aircraft skins and honeycomb core, 7/95, p. 40
 - review of 1994 technical developments in, 2/95, p. 25
- Descaling**
 - review of 1994 technical developments in, 2/95, p. 29
- Disk Drive**
 - sputtering system for a, 1/95, p. 13
- Electrocoating**
 - measuring efficiency of, 2/95, p. 82
 - review of 1994 technical developments in, 2/95, p. 16
- Electrodeposition**
 - influence of inorganic ion species on zinc, 7/95, p. 10
 - method of molybdenum black coatings for solar energy applications, 6/95, p. 90
 - nickel-free, 9/95, p. 61
 - of iridium, 7/95, p. 61
 - of nickel-tungsten alloys, 7/95, p. 33
 - of yttrium from a nonaqueous bath, 4/95, p. 28
 - review of 1994 technical developments in, 2/95, p. 31
 - some experiences with a platinum-plated anode for chromium, 9/95, p. 46
- Electroforming**
 - review of 1994 technical developments in, 2/95, p. 45
- Electroless Nickel**
 - developing technologies for, 9/95, p. 55
 - diffusion barrier for copper, 5/95, p. 58; 6/95, p. 113
 - galvanic series including, 4/95, p. 62
 - outgassing of aluminum during, 6/95, p. 119
 - plating of powder metals, 2/95, p. 85
 - plating on stainless steel, 7/95, p. 61
 - tarnish/discoloration of, 9/95, p. 59
 - tungsten-phosphorus plating on gallium arsenide single crystals, 1/95, p. 26
 - yellow, 4/95, p. 57
- Electroless Plating**
 - developing technologies for nickel, palladium, and gold, 9/95, p. 55
 - precipitate in activator bath for, 5/95, p. 60
 - review of 1994 technical developments in, 2/95, p. 40
- Electrolytic Recovery**
 - product showcase of equipment for, 4/95, p. 53
- Electropolishing**
 - pitting in stainless steel, 7/95, p. 61
 - review of 1994 technical developments in, 2/95, p. 30
 - variability in, 8/95, p. 66
 - to remove welding spots, 3/95, p. 62; 5/95, p. 60
- Electrostatic Spraying**
 - of waterbormes, 1/95, p. 20; 4/95, p. 60; 10/95, p. 48
 - revision of NFPA standard for, 11/95, p. 34
- Enhanced Monitoring**
 - at paint and coating facilities, 8/95, p. 12
- Epoxy Coating**
 - do you need an, 8/95, p. 57
 - failure of water-reducible primer, 1/95, p. 47
 - prepping of before topcoating, 4/95, p. 69
 - solvent versus water mixed catalyzed, 3/95, p. 60
- Etching**
 - platinum-iridium alloy after electrical discharge machining, 12/95, p. 47
 - review of 1994 technical developments in, 2/95, p. 29
 - solutions for gallium arsenide, 1/95, p. 26
- Exhaust Ventilation**
 - during plating, 6/95, p. 79
- Far East**
 - business methods in the, 11/95, p. 81
- Filters**
 - dealing with solvent distillation of waste paint, 5/95, p. 44
 - decreasing frequency of changing in spray booths, 1/95, p. 57
 - intakes for, 8/95, p. 59; 11/95, p. 76
 - selecting paint booth, 11/95, p. 69
 - water-wash spray booths versus dry, 4/95, p. 69
- Fire**
 - detectors, 11/95, p. 36
 - how it starts in electrostatic spray booths, 11/95, p. 36
- Flash Rusting**
 - are waterbormes more prone to, 5/95, p. 47
- Flowers**
 - plating of, 1/95, p. 79
- Fugitive Emissions**
 - how do you understand, 10/95, p. 64
- Gallium Arsenide**
 - electroless nickel-tungsten-phosphorus plating on single crystals of, 1/95, p. 26
- Galvanic Corrosion**
 - prevention of, 2/95, p. 80
 - series including electroless nickel, 4/95, p. 62
- Gloss and Reflection**
 - measurement of, 5/95, p. 28
- Glossmeter**
 - principle of the, 5/95, p. 29
- Gold**
 - developing technologies for electroless plating of, 9/95, p. 55
 - over titanium nitride for watch bands, 5/95, p. 59
 - plating bath purification, 4/95, p. 57
 - plating of a microwave cavity, 9/95, p. 58; 12/95, p. 47
 - plating thickness measurement by X-ray fluorescence, 5/95, p. 33
 - review of 1994 technical developments in plating of, 2/95, pp. 37, 41
- HVLP**
 - measuring air pressure with, 9/95, p. 62
 - what is HV in, 9/95, p. 62
- Hardness**
 - of chromium plate, 10/95, p. 73
 - reliability of pencil test for, 3/95, p. 61
- Hazardous Air Pollutants**
 - and respirators, 8/95, p. 55

- enhanced monitoring of, 8/95, p. 12
- Hazardous Waste**
 - DTC releases to be treated as, 8/95, p. 59, 11/95, p. 76
 - treating, 5/95, p. 50
 - voluntary cleanup of, 9/95, p. 70
- Heating and Cooling**
 - equipment showcase for, 7/95, p. 44
- High Performance Coatings**
 - failure with, 1/95, p. 47
- Hong Kong**
 - the quandry facing, 6/95, p. 104
- Hot-Dip Coating**
 - corrosion of, 9/95, p. 58; 11/95, p. 75
 - review of 1994 technical developments in, 2/95, p. 45
 - versus electroplate for fasteners, 10/95, p. 60
- Hydrogen Embrittlement**
 - testing of zinc-nickel electroplate by slow strain rate, 4/95, p. 40
- ISO 9000**
 - is certification necessary, 11/95, p. 77
- ISO 9002**
 - job shops registered for, 6/95, p. 107
- ISO 14000**
 - setting global environmental management standards, 8/95, p. 42
- Identification**
 - of painted parts, 3/95, p. 60
- Immersion Plating**
 - review of 1994 technical developments in, 2/95, p. 44
- Impurities**
 - effects and removal of from alkaline noncyanide zinc plating, 2/95, p. 60
- In-Mold Coating**
 - advancements in injection, 9/95, p. 41
- Internet**
 - jump into telecomputing on the, 5/95, p. 58
- Ion Exchange**
 - hard chrome bath purification and recovery using, 11/95, p. 40
- Ion Plating**
 - decorative applications for hollow cathode discharge, 9/95, p. 50
 - passivation and, 5/95, p. 59
- Iridium**
 - electrodeposition of, 7/95, p. 61
 - etching platinum alloy of, 12/95, p. 47
- Iron**
 - nickel-molybdenum alloy plating, 8/95, p. 29
- Japan**
 - platers of, 12/95, p. 53
- Kick Plates**
 - clear coating over, 4/95, p. 69
- Lead**
 - contamination in copper bath, 11/95, p. 102
 - removal from wastewater using recycled shot blast fines, 11/95, p. 13
- Lead Frames**
 - tin plating of, 1/95, p. 79
- Magnesium**
 - a phosphate-permanganate conversion coating for, 10/95, p. 34
 - anodic coaters of, 9/95, p. 65
 - protecting wheels of, 8/95, p. 59; 12/95, p. 75
- Masking**
 - for powder coating, 3/95, p. 60
 - product showcase of equipment and supplies for, 10/95, p. 56
- Mass Finishing**
 - choosing the right media for, 12/95, p. 37
 - product showcase of equipment and supplies for, 5/95, p. 36
 - review of 1994 technical developments in, 2/95, p. 30
- Metanitrobenzene Sodium Sulfonate**
 - for stripping of tin-lead, 1/95, p. 34
- Molybdenum**
 - black coatings for solar energy applications, 6/95, p. 90
 - nickel-iron alloy plating, 8/95, p. 29
- Nickel**
 - anodizing of, 6/95, p. 119
 - black plating bath, 10/95, p. 73
 - coating processes for aircraft applications, 4/95, p. 46
 - contaminated strike bath for Wood's, 8/95, p. 66; 12/95, p. 54
 - diffusion barrier for copper, 5/95, p. 58; 6/95, p. 113
 - discoloration of electrolytic, 8/95, p. 59; 11/95, p. 75
 - electrocomposites with boron nitride, 6/95, p. 97
 - microstructure of electrodeposited from a sulfamate/formamide bath, 5/95, p. 20
 - molybdenum-iron alloy plating, 8/95, p. 29
 - pitting in sulfamate, 1/95, p. 79
 - review of 1994 technical developments in plating of, 2/95, pp. 34, 42
 - tarnishing of plated, 11/95, p. 102
 - testing jewelry for, 6/95, p. 119
 - thickness requirements for plating of, 1/95, p. 79
 - tungsten alloy electrodeposition, 7/95, p. 33
 - what happens to the boron from boric acid in plating of, 12/95, p. 47
- Nylon**
 - in immersion service for plating barrels, 4/95, p. 62
- Off-Color Paint**
 - disposing of, 4/95, p. 58
- Ohio**
 - pollution prevention in, 2/95, p. 65
- Opacity Monitors**
 - for testing emissions from boilers, 6/95, p. 109
- Orange Peel**
 - measurement of, 5/95, p. 30
- Overheating**
 - its decisive role in phosphating, 1/95, p. 30
- Paint Defects**
 - monitoring of, 2/95, p. 75
 - what is blushing, 3/95, p. 60
- Paint Stripping**
 - gummy residue on parts after, 3/95, p. 62
 - review of 1994 technical developments in, 2/95, p. 20
 - with nontoxic chemicals, 4/95, p. 34
- Palladium**
 - developing technologies for electroless plating of, 9/95, p. 55
- Perchloroethylene**
 - contamination of, 2/95, p. 75; 6/95, p. 113
- Permits**
 - operating without, 11/95, p. 84
- Phosphate Coating**
 - calcium as an additive for, 3/95, p. 40
 - modification with metal ions for improved corrosion resistance of iron, 3/95, p. 36
 - nonchromated seal failure of, 2/95, p. 80
 - overheating-its decisive role in, 1/95, p. 30
 - overview of, 11/95, p. 67
- Photometric Determination**
 - of trivalent chromium, 5/95, p. 12
- Pickling**
 - black smut after sulfuric acid, 2/95, p. 84
 - estimating emissions from hydrochloric acid, 2/95, p. 74
 - review of 1994 technical developments in, 2/95, p. 29
 - silicon steels in mixed acid solutions, 2/95, p. 70
- Pitting**
 - in electropolished stainless steel, 7/95, p. 61
- Plastics**
 - in-mold coating of injection-molded, 9/95, p. 41
- Polishing**
 - for stripping of tin-lead, 1/95, p. 34
- Pollution Prevention**
 - review of 1994 technical developments in, 2/95, p. 30
 - theory and practice, 12/95, p. 34
- Polyurethane Coatings**
 - DS2 testing of CARC, 3/95, p. 60
 - failure of moisture-cure white, 1/95, p. 47
 - spraying of, 2/95, p. 82
- Postforming**
 - preparation, powder coating, and curing of pre-cut metal sheets for, 4/95, p. 24
- Powder Coating**
 - an overview of technology trends in, 6/95, p. 89
 - and curing of pre-cut metal sheets for postforming, 4/95, p. 24
 - curing on large parts, 10/95, p. 65
 - for a clear finish over kick plates, 4/95, p. 69
 - masking for, 3/95, p. 60
 - review of 1994 technical developments in, 2/95, p. 12
 - touching up, 10/95, p. 65
 - U.S. Council for Automotive Research approach to, 10/95, p. 26
 - with liquid spray on a single-conveyor line, 8/95, p. 57
- Powder Coating '95**
 - preview of conference and trade show, 10/95, p. 22
- Powder Metals**
 - plating of, 2/95, p. 85
- Pretreatment**
 - review of 1994 organic finishing technical developments in, 2/95, p. 10
- Precious Metals**
 - review of 1994 technical developments in plating of, 2/95, pp. 36, 40
- Product Showcase**
 - air pollution control systems, 2/95, p. 55
 - anodizing processes and equipment, 1/2/95, p. 40
 - blasting equipment and media, 1/95, p. 43
 - electrolytic recovery equipment, 4/95, p. 53
 - heating and cooling equipment, 7/95, p. 44
 - masking equipment and supplies, 10/95, p. 56
 - mass finishing equipment and supplies, 5/95, p. 36
 - ultrasonic cleaning equipment, 8/95, p. 49
 - vacuum coating equipment and supplies, 3/95, p. 45
- Pulse Plating**
 - coulometric readout for, 1/95, p. 24
 - effects of additives in, 6/95, p. 85
 - unfamiliar aspects of, 6/95, p. 84
- Quality Control**
 - communicating the vision of, 1/95, p. 49
 - facing up to barriers in, 4/95, p. 64
 - guaranteed, 6/95, p. 116
 - is ISO 9000 certification necessary for, 11/95, p. 77
 - management error in, 9/95, p. 72
 - non-normal frequency distributions in, 5/95, p. 52
 - selected problem solving techniques in, 2/95, p. 76
 - the challenge of total quality management in, 12/95, p. 43
 - uncertainty in for environmental testing, 3/95, p. 54
- Records**
 - being responsible for other people's, 10/95, p. 63
- Rectifiers**
 - ripple in, 1/95, p. 52; 6/95, p. 100
- Rejected Parts**
 - re-anodizing of, 6/95, p. 119
- Respirators**
 - and hazardous air pollutants, 8/95, p. 54
 - for spraying of polyurethanes, 2/95, p. 82
- Rim Exhausts**
 -

- a model for and design of, 6/95, p. 79
- Rinsewater
 - reusing of, 4/95, p. 63
- Ripple
 - effects of on plating uniformity in chloride zinc baths, 6/95, p. 100
 - in rectifiers, 1/95, p. 52
- SFMRB
 - role of in metal finishing market research, 2/95, p. 73
- SME Finishing '95
 - preview of conference and exhibition, 9/95, p. 16
- Safety
 - in refilling of anode baskets, 1/95, p. 54
- Seal Rinses
 - nonchromated failure of, 2/95, p. 80
- Sealants
 - for anodized aluminum, 7/95, p. 16; 10/95, p. 73
- Sealed for Life
 - return of machinery, 8/95, p. 60
- Sheet Molding Compound
 - history of, 9/95, p. 41
- Sherardizing
 - what is meant by, 5/95, p. 60
- Shot Peening
 - an overview of, 5/95, p. 41
 - review of 1994 technical developments in, 2/95, p. 26
- Silver
 - chemical polish for, 11/95, p. 75
 - losses in plating of, 1/95, p. 79
 - plating on chromium, 4/95, p. 57
 - stains on plated, 12/95, p. 54
 - variability in barrel plating of, 2/95, p. 84
- Smut
 - formation after pickling, 2/95, p. 84
- Solder
 - hot air leveling of, 3/95, p. 52
 - stripping from copper and steel, 1/95, p. 34
- Solvent
 - deciding on the best thinner, 9/95, p. 62
 - distillation of waste paint filters, 5/95, p. 44
 - information, 11/95, p. 84
 - recycling, 7/95, p. 55
 - regulatory impacts on the use of, 8/95, p. 12
- Spills
 - delivery, 12/95, p. 48
- Spray Booth
 - decreasing the frequency of dry filter changes in a, 1/95, p. 57
 - dry filter versus water-wash, 4/95, p. 69
 - unbalanced air in a, 8/95, p. 54
 - recirculation ventilation in a, 12/95, p. 21, 30
 - when to shut down the, 3/95, p. 50
- Spray Painting
 - flushing out a fluid tube from, 7/95, p. 57
 - measuring air pressure in HVLP, 9/95, p. 62
 - mixing liquid and powder on a single-conveyor line for, 8/95, p. 57
 - of polyurethanes, 2/95, p. 82
 - of waterbormes, 1/95, p. 20; 4/95, p. 60
 - review of 1994 technical developments in, 2/95, p. 19
 - rotational system for drying after, 10/95, p. 40
- Sputtering
 - system for hard disk media, 1/95, p. 13
- Stainless Steel
 - an X-ray photoelectron spectroscopy study of nickel-coated, 4/95, p. 47
 - anodes in copper strike, 5/95, p. 60
 - grinding aids and, 12/95, p. 14
 - passivation of, 9/95, p. 61
 - pitting in electropolished, 7/95, p. 61
 - plating on, 7/95, p. 61
 - refinishers, 10/95, p. 66
- rust formation after polishing of, 3/95, p. 62; 5/95, p. 60
- simulate, 9/95, p. 68
- titanium nitride plus gold on, 5/95, p. 59
- Statutes
 - whistle blower, 11/95, p. 72
- Steam
 - electrical installation for a coil carrying, 5/95, p. 58
 - versus hot water for heating, 6/95, p. 114
- Steel
 - pickling in mixed acid solutions, 2/95, p. 70
 - restoring titanium nitride finish on high-speed, 9/95, p. 58
- Strip and Selective Plating
 - review of 1994 technical developments in, 2/95, p. 46
- Stripping
 - gummy residue on parts after paint, 3/95, p. 62
 - review of 1994 technical developments in paint, 2/95, p. 20
 - with nontoxic chemicals, 4/95, p. 34
 - of solder or solder electroplates, 1/95, p. 34
 - review of 1994 technical developments in metal, 2/95, p. 30
- Surfactants
 - killing of, 3/95, p. 52
- SUR/FIN '95
 - preview of technical program and exhibitors for, 6/95, p. 16
- Tanks
 - cabling plating, 2/95, p. 75
- Technical Developments
 - in 1994: inorganic "metallic" finishes, processes, and equipment, 2/95, p. 25
 - in 1994: organic coatings, processes, and equipment, 2/95, p. 10
- Testing
 - anodic breakthrough method for of aluminum anodizing, 7/95, p. 22
 - boilers with opacity monitors, 6/95, p. 109
 - for nickel in jewelry, 6/95, p. 119
 - Mil-C-5541 chromate, 9/95, p. 59
 - of CARC with DS2, 3/95, p. 60
 - of gloss and reflection properties, 5/95, p. 28
 - of gold plating thickness by X-ray fluorescence, 5/95, p. 33
 - nickel coating processes using X-ray photoelectron spectroscopy, 4/95, p. 46
 - reliability of pencil hardness, 3/95, p. 60
 - review of 1994 inorganic technical developments in, 2/95, p. 47
 - review of 1994 organic technical developments in, 2/95, p. 22
 - trivalent chromium in chromium plating electrolytes, 5/95, p. 12
 - uncertainty in environmental, 3/95, p. 54
 - with slow strain rate to verify low hydrogen embrittlement of plated deposits, 4/95, p. 40
- Thermal Deburring
 - an overview of, 3/95, p. 58
- Thickness
 - dangers of single-point calibration for gauges measuring, 7/95, p. 26
 - of gold by X-ray fluorescence measurement, 5/95, p. 33
- Tin
 - copper contamination in acid baths for plating of, 8/95, p. 66
 - deposition from a gluconate bath, 10/95, p. 16
 - plating of lead frames, 1/95, p. 79
 - review of 1994 technical developments in plating of, 2/95, p. 34
- Tin-Lead
 - application of coatings of, 3/95, p. 62
 - getting the lead out of, 5/95, p. 60
- metal build-up in reel-to-reel plating of, 8/95, p. 66
- review of 1994 technical developments in plating of, 2/95, p. 34
- stripping from copper and steel, 1/95, p. 34
- Tin-Zinc
 - plating, 9/95, p. 10
- Titanium
 - anodic protection of, 8/95, p. 61
 - black film on baskets of, 10/95, p. 60
 - chromium electrodeposition with a platinum-plated anode of, 9/95, p. 46
 - electric heater troubles, 10/95, p. 60
 - nitride plus gold on 304 stainless steel, 5/95, p. 59
 - nitride and carbonitride decorative coatings, 9/95, p. 50
 - restoring finish of nitrided, 9/95, p. 58
- Title V
 - air permits for chrome plating under, 4/95, p. 63
 - how to deal with equipment malfunctions in, 7/95, p. 57
 - operating flexibility under, 1/95, p. 57
 - requires better communication between management and painters, 3/95, p. 50
- Touch-Up
 - of powder-coated parts, 10/95, p. 65
 - painting, 7/95, p. 58
 - problems with paint, 8/95, p. 57
- Tungsten
 - electroless nickel-phosphorus plating on gallium arsenide, 1/95, p. 26
 - nickel alloy electrodeposition, 7/95, p. 33
- Ultraviolet Curable Coatings
 - review of 1994 technical developments in, 2/95, p. 14
- VOC
 - carrying over of daily emissions of, 10/95, p. 63
 - confusion with calculation of, 10/95, p. 63
 - enhanced monitoring of, 8/95, p. 12
 - laboratory determination of content of, 12/95, p. 50
 - regulations in pounds per gallon instead of pounds per square foot, 4/95, p. 61
- Vacuum Coating
 - quality and productivity enhancements through in-line, 3/95, p. 27
 - review of 1994 technical developments in, 2/95, p. 38
 - product showcase of equipment and supplies for, 3/95, p. 45
- Value Analysis
 - for comparing coatings, 11/95, p. 69
- Ventilation
 - capture efficiency of during plating, 6/95, p. 79
- Violations
 - for delivery spills, 12/95, p. 48
 - under the NPDES permit system, 8/95, p. 40
 - who bears responsibility for, 1/95, p. 57
- Viscosity
 - obtaining consistent, 4/95, p. 70
- Waste Drums
 - need to seal while in use, 7/95, p. 57
- Waste Treatment
 - clarifiers and/or filters for, 1/95, p. 53
 - of cadmium, zinc, and lead using recycled shot-blast fines, 11/95, p. 13
 - of chromates and black oxide, 6/95, p. 114
 - problem with precipitation of zinc, 10/95, p. 61
 - review of 1994 inorganic technical developments in, 2/95, p. 49
- Water Pollution Control
 - review of 1994 technical developments in, 2/95, p. 22
- Waterborne Coatings
 - and flash rusting, 5/95, p. 47
 - converting to, 1/95, p. 20; 5/95, p. 47

- electrostatic spraying of, 1/95, p. 20; 4/95, p. 60
- failure of epoxy primer, 1/95, p. 47
- review of 1994 technical developments in, 2/95, p. 14
- robotic automotive basecoat application of, 10/95, p. 47
- Yttrium**
 - electrodeposition of from a nonaqueous bath, 4/95, p. 28
- X-ray**
 - fluorescence measurement of gold plating thickness, 5/95, p. 33
 - photoelectron spectroscopy study of nickel coating processes, 4/95, p. 46
- Zinc**
 - alkaline noncyanide plating of, 2/95, p. 60
 - coatings produced from a sulfate bath, 11/95, p. 55
 - color coding of chromated, 8/95, p. 66
 - corrosion of, 12/95, p. 54
 - effects of voltage ripple on plating uniformity in chloride, 6/95, p. 100
 - influence of inorganic ion species on electrodeposition of, 7/95, p. 10
 - plating of chassis with, 12/95, p. 46
 - review of 1994 technical developments in plating of, 2/95, p. 36
 - rusting of hardware plated with, 9/95, p. 61
 - problem with precipitation of, 10/95, p. 61
 - removal from wastewater using recycled shot-blast fines, 11/95, p. 13
 - whiskers, 10/95, p. 61
- Zinc-Cobalt**
 - versus hot-dip galvanizing, 10/95, p. 60
- Zinc-Nickel**
 - review of 1994 technical developments in plating of, 2/95, p. 36
 - verification of low hydrogen embrittlement by slow strain rate testing of, 4/95, p. 40

AUTHOR INDEX

- Abbas, M.H.**
 - Kinetics of Aluminum Chromating, 12/95, p. 8
- Albright, D.L.**
 - A Phosphate-Permanganate Conversion Coating for Magnesium, 10/95, p. 34
- Ananth, M.V.**
 - Nickel-Molybdenum-Iron Alloy Plating: Studies on the Improvement of Corrosion Resistance, 8/95, p. 29
- Apسان, H.N.**
 - ISO 14000: Setting Global Environmental Management Standards, 8/95, p. 42
- Ash, P.J.**
 - The Anodic Breakthrough Method for Testing Anodized Aluminum, 7/95, p. 22
- Asrar, N.**
 - Pickling Silicon Steels in Mixed Acid Solutions, 2/95, p. 70
- Ault, P.J.**
 - Chromate Conversion Coating Elimination from 5000 Series Armor-Grade Aluminum, 11/95, p. 28
- Ayer, J.**
 - Recirculation Ventilation in Paint Spray Booths: New Insights, 12/95, p. 21
- Balasubramanian, N.**
 - Removal and Recovery of Chromium from Plating Waste Using Chemically Activated Carbon, 11/95, p. 46
- Baldwin, P.C.**
 - A Coulometric Readout for Pulse Plating, 1/95, p. 24
 - Some Unfamiliar Aspects of Pulse Plating, 6/95, p. 84
- Barbero, L.**
 - Chromate Conversion Coating Elimination from 5000 Series Armor-Grade Aluminum, 11/95, p. 28
- Barkovskaya, L.V.**
 - Electroless Nickel-Tungsten-Phosphorus Plating on the Surface of Gallium Arsenide Single Crystals, 1/95, p. 26
- Barnes, E.**
 - Aqueous Degreasing of Skins and Honeycomb Core, 7/95, p. 40
- Barrera, E.V.**
 - An X-ray Photoelectron Spectroscopy Study of Nickel Coating Processes for Aircraft Application, 4/95, p. 46
- Baudrand, D.**
 - Electroless Plating Processes: Developing Technologies for Electroless Nickel, Palladium, and Gold, 9/95, p. 55
- Bauman, A.J.**
 - Organic Acid Sealants for Anodized Alumi-
- Bengtson, J.**
 - Electroless Plating Processes: Developing Technologies for Electroless Nickel, Palladium, and Gold, 9/95, p. 55
- Berglund, R.**
 - Effective Ventilation During Plating—Capture Efficiency for Rim Exhausts, 6/95, p. 79
- Bird, R.W.**
 - Aqueous Alkaline Cleaners: A Better Alternative, 3/95, p. 10
- Budman, E.**
 - Alkaline Noncyanide Zinc Plating, 2/95, p. 60
 - Tin-Zinc Plating, 9/95, p. 10
- Burke, T.**
 - Shop Problems: Paints and Coatings*, 1/95, p. 47; 2/95, p. 80; 3/95, p. 60; 4/95, p. 69; 5/95, p. 47; 6/95, p. 140; 8/95, p. 57; 9/95, p. 68; 10/95, p. 65; 11/95, p. 69
- Bushell, P.G.**
 - Verification of the Development of Low Hydrogen Embrittling Zinc-Nickel Electrolyte by Slow Strain Rate Testing, 4/95, p. 40
- Cassil, D.W.**
 - Advancements in Injection In-Mold Coating Technology, 9/95, p. 41
- Castleman, D.A.**
 - NFPA 33 Revision for Electrostatic Painting Applications, 11/95, p. 34
- Chiancola, M.**
 - Choosing the Right Media to Meet Mass Finishing Goals, 12/95, p. 37
- Crest, S.**
 - Programmed for Success*
 - Lesson 6: Finding It Fast, 1/95, p. 55
 - Lesson 7: Impressing the Customer, 3/95, p. 42
 - Lesson 8: Charting Your Future, 5/95, p. 55
 - Lesson 9: Link 'Em or Lose 'Em, 7/95, p. 49
 - Lesson 10: Newsletters in Less than an Hour, 10/95, p. 68
 - Lesson 11: Make Your Own Holiday Newsletter, 11/95, p. 70
- Dickman, A., Jr.**
 - Polishing and Buffing: Theory and Practice, 12/95, p. 34
- Dobrev, T.**
 - Determination of Trivalent Chromium in Chromium Plating Electrolytes, 5/95, p. 12
- Durant, J.H.**
 - Vacuum Metallizing—Quality and Productivity Enhancements Through In-Line Technology, 3/95, p. 27
- El-Gafari, B.A.**
 - Aqueous Degreasing of Skins and Honeycomb Core, 7/95, p. 40
- Gage, N.**
 - Verification of the Development of Low Hydrogen Embrittling Zinc-Nickel Electrolyte by Slow Strain Rate Testing, 4/95, p. 40
- Gagliardi, J.J.**
 - Microreplication Technology Meets Coated Abrasive Demands, 12/95, p. 14
- Górecki, G.**
 - Improved Iron Phosphate Corrosion Resistance by Modification with Metal Ions, 3/95, p. 36
- Grincevichene, L.**
 - The Influence of Inorganic Ion Species on the Electrodeposition of Zinc from Weak Acid Zinc Electrolytes, 7/95, p. 10
- Hager, J.S.**
 - Increasing Paint Application Transfer Efficiency on Robotic Waterborne Automotive Basecoat Application, 10/95, p. 47
- Hans, H.B.**
 - Paint Stripping with Nontoxic Chemicals, 4/95, p. 34
- Hara, T.**
 - A Rotational System for Paint Finishing, 10/95, p. 40
- Hawke, D.**
 - A Phosphate-Permanganate Conversion Coating for Magnesium, 10/95, p. 34
- Hosny, A.Y.**
 - Electroless Plating Processes: Developing Technologies for Electroless Nickel, Palladium, and Gold, 9/95, p. 55
- El-Rafei, M.E.**
 - Corrosion Resistance of Zinc Coatings Produced from a Sulfate Bath, 11/95, p. 55
- Evanoff, S.P.**
 - Aqueous Degreasing of Skins and Honeycomb Core, 7/95, p. 40
- Falcone, S.**
 - Effects of Enhanced Monitoring at Paint and Coating Facilities, 8/95, p. 12
- Flott, L.W.**
 - Quality Control*
 - Communicating the Vision, 1/95, p. 49
 - Selected Problem-Solving Techniques, 2/95, p. 76
 - Uncertainty in Environmental Testing, 3/95, p. 54
 - Facing Up to Barriers, 4/95, p. 64
 - Nonnormal Frequency Distributions, 5/95, p. 52
 - Quality: Guaranteed!, 6/95, p. 116
 - Measurement Error, 9/95, p. 72
 - Is ISO 9000 Certification Necessary?, 11/95, p. 77
 - The Challenge of Total Quality Management, 12/95, p. 43
- Gage, N.**
 - Verification of the Development of Low Hydrogen Embrittling Zinc-Nickel Electrolyte by Slow Strain Rate Testing, 4/95, p. 40
- Gagliardi, J.J.**
 - Microreplication Technology Meets Coated Abrasive Demands, 12/95, p. 14
- Górecki, G.**
 - Improved Iron Phosphate Corrosion Resistance by Modification with Metal Ions, 3/95, p. 36
- Grincevichene, L.**
 - The Influence of Inorganic Ion Species on the Electrodeposition of Zinc from Weak Acid Zinc Electrolytes, 7/95, p. 10
- Hager, J.S.**
 - Increasing Paint Application Transfer Efficiency on Robotic Waterborne Automotive Basecoat Application, 10/95, p. 47
- Hans, H.B.**
 - Paint Stripping with Nontoxic Chemicals, 4/95, p. 34
- Hara, T.**
 - A Rotational System for Paint Finishing, 10/95, p. 40
- Hawke, D.**
 - A Phosphate-Permanganate Conversion Coating for Magnesium, 10/95, p. 34
- Hosny, A.Y.**
 - Electroless Plating Processes: Developing Technologies for Electroless Nickel, Palladium, and Gold, 9/95, p. 55
- El-Rafei, M.E.**
 - Corrosion Resistance of Zinc Coatings Produced from a Sulfate Bath, 11/95, p. 55
- Evanoff, S.P.**
 - Aqueous Degreasing of Skins and Honeycomb Core, 7/95, p. 40
- Falcone, S.**
 - Effects of Enhanced Monitoring at Paint and Coating Facilities, 8/95, p. 12
- Flott, L.W.**
 - Quality Control*
 - Communicating the Vision, 1/95, p. 49
 - Selected Problem-Solving Techniques, 2/95, p. 76
 - Uncertainty in Environmental Testing, 3/95, p. 54
 - Facing Up to Barriers, 4/95, p. 64
 - Nonnormal Frequency Distributions, 5/95, p. 52
 - Quality: Guaranteed!, 6/95, p. 116
 - Measurement Error, 9/95, p. 72
 - Is ISO 9000 Certification Necessary?, 11/95, p. 77
 - The Challenge of Total Quality Management, 12/95, p. 43
- Gage, N.**
 - Verification of the Development of Low Hydrogen Embrittling Zinc-Nickel Electrolyte by Slow Strain Rate Testing, 4/95, p. 40
- Gagliardi, J.J.**
 - Microreplication Technology Meets Coated Abrasive Demands, 12/95, p. 14
- Górecki, G.**
 - Improved Iron Phosphate Corrosion Resistance by Modification with Metal Ions, 3/95, p. 36
- Grincevichene, L.**
 - The Influence of Inorganic Ion Species on the Electrodeposition of Zinc from Weak Acid Zinc Electrolytes, 7/95, p. 10
- Hager, J.S.**
 - Increasing Paint Application Transfer Efficiency on Robotic Waterborne Automotive Basecoat Application, 10/95, p. 47
- Hans, H.B.**
 - Paint Stripping with Nontoxic Chemicals, 4/95, p. 34
- Hara, T.**
 - A Rotational System for Paint Finishing, 10/95, p. 40
- Hawke, D.**
 - A Phosphate-Permanganate Conversion Coating for Magnesium, 10/95, p. 34
- Hosny, A.Y.**
 - Electroless Plating Processes: Developing Technologies for Electroless Nickel, Palladium, and Gold, 9/95, p. 55

-Corrosion Resistance of Zinc Coatings Produced from a Sulfate Bath, 11/95, p. 55

Hurd, J.

- Chromate Conversion Coating Elimination from 5000 Series Armor-Grade Aluminum, 11/95, p. 28

Jakobson, S.

- The Influence of Inorganic Ion Species on the Electrodeposition of Zinc from Weak Acid Zinc Electrolytes, 7/95, p. 10

Jayakrishnan, S.

- Electrodeposition of Nickel-Tungsten Alloys, 7/95, p. 33
- Some Experiences with a Platinum-Plated Titanium Anode for Chromium Electrodeposition, 9/95, p. 46

Joseph, R.

- Commentary on "Recirculation Ventilation in Paint Spray Booths: New Insights," 12/95, p. 30

Environmental Coating Problems, 1/95, p. 57; 2/95, p. 82; 3/95, p. 50; 4/95, p. 60; 5/95, p. 44; 6/95, p. 111; 7/95, p. 57; 8/95, p. 54; 9/95, p. 62; 10/95, p. 63; 11/95, p. 84; 12/95, p. 50

Jurgetz, A.

- Automotive Paint Performance, 10/95, p. 53

Kanegsberg, B.

- Common Sense Initiative: Toward a More Productive Metal-Finishing Industry, 8/95, p. 44

Kennedy, C.J.

- Electrodeposition of Nickel-Tungsten Alloys, 7/95, p. 33

Kiefer, S.L.

- An Overview of Powder Coating Technology Trends, 6/95, p. 88

Kigle-Boeckler, G.

- Measurement of Gloss and Reflection Properties of Surfaces, 5/95, p. 28

Konieczynski, R.D.

- Converting to Waterbournes for Less Cost, 1/95, p. 20

Krishnan, R.M.

- Chemical Removal of Solder or Solder Electroplates, 1/95, p. 34
- Electrodeposition of Nickel-Tungsten Alloys, 7/95, p. 33
- Some Experiences with a Platinum-Plated Titanium Anode for Chromium Electrodeposition, 9/95, p. 46

Kumbhar, P.P.

- Electrodeposition of Yttrium from a Nonaqueous Bath, 4/95, p. 28

Lavine, R.

- A New Sputtering System for Hard Disk Media, 1/95, p. 13

Leach, R.C.

- The Preparation, Powder Coating, and Curing of Precut Metal Sheets for Postforming, 4/95, p. 24

Lokhande, C.D.

- Electrodeposition of Yttrium from a Nonaqueous Bath, 4/95, p. 28

McCoy, M.

- Tin-Zinc Plating, 9/95, p. 10

McGovern, W.E.

- Precision Surface Cleaning with Supercritical Carbon Dioxide: Issues, Experience, and Prospects, 3/95, p. 22

Melvin, C.

- Pollution Prevention in Southwestern Ohio, 2/95, p. 65

Meschievitz, T.

- U.S. Council for Automotive Research (US-CAR) Low-Emission Paint Consortium: A Unique Approach to Powder Painting Technology Development, 10/95, p. 26

Miles, T.E.

- Hard Chrome MACT Standard: Development and Compliance with T-BACT Controls, 11/95, p. 60

Minato, M.

- Decorative Applications for Hollow Cathode Discharge Ion Plating, 9/95, p. 50

Monev, M.

- Determination of Trivalent Chromium in Chromium Plating Electrolytes, 5/95, p. 12

Mooney, T. *Heard on the Hotline*, 1/95, p. 52; 2/95, p. 74; 3/95, p. 52; 4/95, p. 62; 5/95, p. 58; 6/95, p. 113; 7/95, p. 52; 8/95, p. 59; 9/95, p. 58; 10/95, p. 60; 11/95, p. 75; 12/95, p. 46

Morris, V.L.

- The Aerospace Industry: An Impact Assessment of the 1990 Clean Air Act Amendments, 4/95, p. 10
- The Aerospace Industry: Regulatory Impacts on the Use of Solvents, 8/95, p. 20

Morsy, S.M.

- Corrosion Resistance of Zinc Coatings Produced from a Sulfate Bath, 11/95, p. 55

Moses, J.M.

- Precision Surface Cleaning with Supercritical Carbon Dioxide: Issues, Experience, and Prospects, 3/95, p. 22

Muralidharan, V.S.

- Tin Deposition from a Gluconate Bath, 10/95, p. 16

Murphy, M.

- Technical Developments in 1994: Organic Coatings, Processes, and Equipment, 2/95, p. 10
- Technical Developments in 1994: Inorganic "Metallic" Finishes, Processes, and Equipment, 2/95, p. 25
- Focus on Chromium, 8/95, p. 34

Muthukumaran, K.

- Removal and Recovery of Chromium from Plating Waste Using Chemically Activated Carbon, 11/95, p. 46

Nair, U.B.

- Calcium as a Phosphating Additive: An Overview, 3/95, p. 40

Natarajan, S.R.

- Chemical Removal of Solder or Solder Electroplates, 1/95, p. 34
- Nickel-Boron Nitride Electrocomposites, 6/95, p. 97
- Electrodeposition of Nickel-Tungsten Alloys, 7/95, p. 33
- Some Experiences with a Platinum-Plated Titanium Anode for Chromium Electrodeposition, 9/95, p. 46

Nikolova, S.

- Determination of Trivalent Chromium in Chromium Plating Electrolytes, 5/95, p. 12

Olivas, J.D.

- An X-ray Photoelectron Spectroscopy Study of Nickel Coating Processes for Aircraft Application, 4/95, p. 46

Pajunen, P.

- Hard Chrome Bath Purification and Recovery Using Ion Exchange, 11/95, p. 40

Parthasarathy, N.V.

- Nickel-Molybdenum-Iron Alloy Plating: Studies on the Improvement of Corrosion Resistance, 8/95, p. 29

Pearson, R.

- U.S. Council for Automotive Research (US-CAR) Low-Emission Paint Consortium: A Unique Approach to Powder Painting Technology Development, 10/95, p. 26

Phillips, J.H.

- Legal Alert

- Off-Color Paint, 4/95, p. 58
- Treating Hazardous Wastes, 5/95, p. 50
- Opacity Monitors, 6/95, p. 109
- Recycling Solvent, 7/95, p. 55
- Chrom Plating, 8/95, p. 40
- Voluntary Cleanup, 9/95, p. 70
- Citizen Suits and the Clean Water Act, 10/95, p. 50
- Whistle Blower Statutes, 11/95, p. 72
- Delivery Spills, 12/95, p. 48

Purovskaya, O.G.

- Electroless Nickel-Tungsten-Phosphorus Plating on the Surface of Gallium Arsenide Single Crystals, 1/95, p. 26

Pushpavananam, M.

- Nickel-Boron Nitride Electrocomposites, 6/95, p. 97
- Tin Deposition from a Gluconate Bath, 10/95, p. 16

Quitmeyer, J.A.

- Equipment Modification for Aqueous Cleaner Applications, 3/95, p. 30
- The Evolution of Aqueous Cleaner Technology, 9/95, p. 34

Rahangdale, Y.

- U.S. Council for Automotive Research (US-CAR) Low-Emission Paint Consortium: A Unique Approach to Powder Painting Technology Development, 10/95, p. 26

Ramadan, T.A.

- Corrosion Resistance of Zinc Coatings Produced from a Sulfate Bath, 11/95, p. 55

Ramakrishna, T.V.

- Removal and Recovery of Chromium from Plating Waste Using Chemically Activated Carbon, 11/95, p. 46

Rayle, J.W.

- Advancements in Injection In-Mold Coating Technology, 9/95, p. 41

Reilly, F.

- XRF Measurement of Gold Plating Thickness, 5/95, p. 33

Roberge, P.R.

- The Anodic Breakthrough Method for Testing Anodized Aluminum, 7/95, p. 22

Sankara Narayanan, T.S.N.

- Overheating—Its Decisive Role in Phosphating, 1/95, p. 30

Sellars, I.C.

- The Dangers of Single-Point Calibration for Electronic Coating Thickness Gauges, 7/95, p. 26

Shulman, G.P.

- Organic Acid Sealants for Anodized Aluminum—A New Method for Corrosion Protection, 7/95, p. 16

Sims, J.

- An X-ray Photoelectron Spectroscopy Study of Nickel Coating Processes for Aircraft Application, 4/95, p. 46

Smith, E.H.

- Removal of Cadmium, Zinc, and Lead from Wastewater Using Recycled Shot-Blast Fines, 11/95, p. 13

Srivastava, H.K.

- Microstructure of Nickel Electrodeposited from a Nickel Sulfamate/Formamide Bath, 5/95, p. 20

Sriveeraraghavan, S.

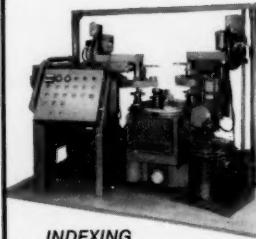
- Chemical Removal of Solder or Solder Electroplates, 1/95, p. 34
- Electrodeposition of Nickel-Tungsten Alloys, 7/95, p. 33
- Some Experiences with a Platinum-Plated Titanium Anode for Chromium Electrodeposition, 9/95, p. 46

Stasiuk, T.

Hammond

POLISHING BUFFING - DEBURRING

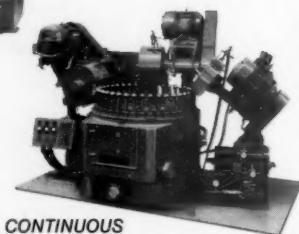
Hammond Automatic Finishing Systems are high production, cost saving machines that are available in many sizes and styles for single or multiple finishing operations.



INDEXING



ROBOTIC



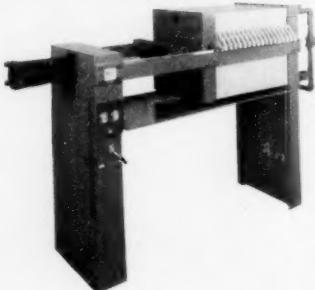
CONTINUOUS

Hammond Machinery

1600 Douglas ■ Kalamazoo, MI 49007 ■ 616-345-7151

Circle 028 on reader information card

LANCO FILTER PRESSES



Features

- Automatic opening hydraulic cylinder to save time during cleaning cycle
- Primed and epoxy coated for maximum chemical resistance
- Cold rolled steel side rails with stainless steel caps
- Drum discharge height for easy cleaning
- Complete manifold including air blowdown feature to assure driest cake
- Filter plates are center fed with 4-corner discharge which provides drier cakes and allows for optional backwash
- Available in sizes from .1 to over 100 cu. ft.
- Expandable at no extra charge
- Competitive Prices/Quick Delivery!
- 90% orders shipped within 10 days!



Lanco Environmental Products

Manufacturers of Clarifiers • Filter Presses • Sludge Dryers

1766 Stehouwer, N.W. • Grand Rapids, MI 49504

Phone (616) 791-9100 Fax (616) 453-1832

We will accept your used equipment in trade!

Circle 065 on reader information card

-The Influence of Inorganic Ion Species on the Electrodeposition of Zinc from Weak Acid Zinc Electrolytes, 7/95, p. 10

Stein, B.

-Effects of Voltage Ripple on Plating Uniformity in Chloride Zinc Baths, 6/95, p. 100

Stepanova, L.I.

-Electroless Nickel-Tungsten-Phosphorus Plating on the Surface of Gallium Arsenide Single Crystals, 1/95, p. 26

Stern, K.

-Pollution Prevention in Southwestern Ohio, 2/95, p. 65

Subbaiyan, M.

-Overheating—Its Decisive Role in Phosphating, 1/95, p. 30

Thakur, C.P.

-Pickling Silicon Steels in Mixed Acid Solutions, 2/95, p. 70

Tyler, J.M.

-Automotive Applications for Chromium, 10/95, p. 11

Vasantha, V.S.

-Tin Deposition from a Gluconate Bath, 10/95, p. 16

Venkatakrishnan, P.G.

-Electrodeposition of Nickel-Tungsten Alloys, 7/95, p. 33

Vishomirskis, R.

-The Influence of Inorganic Ion Species on the Electrodeposition of Zinc from Weak Acid Zinc Electrolytes, 7/95, p. 10

Weber, D.C.

-Precision Surface Cleaning with Supercritical Carbon Dioxide: Issues, Experience, and Prospects, 3/95, p. 22

Weiner, M.

Good Days and Bad Days: People in Finishing:

-Alphabet Soup, 1/95, p. 59

-SFMRB, 2/95, p. 73

-Deburrers, 3/95, p. 58

-Class A Coaters, 4/95, p. 67

-Shot Peening, 5/95, p. 41

-ISO 9002 Registered Job Shops, 6/95, p. 107

-Coating's Critics, 7/95, p. 59

-Hard Anodizers of Large Parts, 8/95, p. 62

-Magnesium Anodic Coaters, 9/95, p. 65

-Stainless Steel Refinishers, 10/95, p. 66

-Phosphate Coaters, 11/95, p. 67

-Platers of Japan, 12/95, p. 53

Williams, B.

-The Influence of Inorganic Ion Species on the Electrodeposition of Zinc from Weak Acid Zinc Electrolytes, 7/95, p. 10

Woodrow, T.A.

-Aqueous Degreasing of Skins and Honeycomb Core, 7/95, p. 40

Wright, D.A.

-Verification of the Development of Low Hydrogen Embrittling Zinc-Nickel Electroplate by Slow Strain Rate Testing, 4/95, p. 40

Yamauchi, K.

-A Rotational System for Paint Finishing, 10/95, p. 40

Yousif, K.M.

-Modification of the Electrodeposition Method of Molybdenum Black Coatings for Solar Energy Applications, 6/95, p. 90

MF

